

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

SEP 0 9 2016

REPLY TO THE ATTENTION OF:

LU-9J

Honorable Emeka Jackson-Hicks 301 River Park Drive East St. Louis, IL 62201

Dear Mayor Jackson-Hicks:

In 2012, the United States Environmental Protection Agency (EPA) wrote to (then) Mayor Parks to report the results of backyard soil contamination sampling at residences along Wilford Avenue in East St. Louis. In the letter, EPA recommended that sampling continue in the area just south of Wilford Avenue, which is zoned for residential use. The 2012 sampling was a continuation of sampling begun in the in 2009 to investigate whether local historical manufacturing had contaminated residential areas. In 2015, EPA sampled additional properties in this area to determine whether local historical industrial operations could have spread contamination.

The sampled soil was in an area zoned for residential use near the City's western boundary adjacent to the Solutia, Inc., W.G. Krummrich facility, in Sauget, IL. Sampling occurred from April 29-30, 2015, and included the collection of 20 (composite) soil samples from mainly undeveloped properties located between the facility boundary and residential locations sampled in 2012. Please refer to the enclosed figure. The properties, which are primarily owned by the City of East St. Louis and the CDC Development Corporation, are located in the TIF 3C Redevelopment Project Area.

EPA collected the samples from the top six inches of the ground from City-owned parcels and in grassy areas in City rights-of-way, and analyzed them for polychlorinated biphenyls (PCBs) in a laboratory. A number of the sample results exceeded the EPA health screening-level for residential soils of one part per million (ppm) for total PCBs. The levels of PCBs ranged from 0.2 to 17 parts per million PCB.

EPA is evaluating the samples from 2009, 2012, and 2015 to determine whether the sampled area qualifies for removal actions or whether more information is needed to make that determination. EPA recommends that additional investigation be performed in this area to assess how contamination levels should be considered during future development. For your information, enclosed is a fact sheet from the Illinois Department of Public Health on how people can reduce exposure to contaminants in soil.

Should you have any questions about the sampling procedures or results, please contact Ms. Carolyn Bury of my staff at 312-886-3020 or by e-mail at bury.carolyn@epa.gov.

I can be reached at 312-886-6945. I am also available by e-mail at Cisneros.jose@epa.gov.

Sincerely,

Jose Cisneros

Chief

Remediation and Re-use Branch

Enclosures

cc: Lynn Williams, IDPH

Myla Oliver-Blanchard, Eastside Health District

Carolyn Bury, EPA Region 5

Solutia Corrective Action/Superfund Sauget Site, EPA ID# ILD 000 802 702 Off-site Residential Soil Sampling Results - 2015





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0 250 500 1,000 Feet

Source: Solutia Sampling 2015 Bing Imagery layer 2016

US EPA R5 LCD: LS 8/18/16

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Polychlorinated Biphenyls (PCBs)

What are polychlorinated biphenyls?

Polychlorinated biphenyls (PCBs) are a group of manmade chemicals. They are oily liquids or solids, clear to yellow in color, with no smell or taste. PCBs are very stable mixtures that are resistant to extreme temperature and pressure. PCBs were used widely in electrical equipment like capacitors and transformers. They also were used in hydraulic fluids, heat transfer fluids, lubricants, and plasticizers. The primary company that made PCBs in the United States was Monsanto Inc., mainly using the name Aroclor. Commercial production of PCBs ended in 1977 because of health effects associated with exposure. In 1979, the U.S. Environmental Protection Agency (USEPA) banned the use of PCBs; however, PCBs are still present in many pre-1979 products.

How do PCBs get into the environment?

PCBs have been released into the environment through spills, leaks from electrical and other equipment, and improper disposal and storage. It is estimated that more than half of the PCBs produced have been released into the environment. Once in the environment, PCBs can be transported long distances and they bind strongly to soil and sediment so they tend to be persistent in the environment. They have been found in air, water, soil, and sediments throughout the world. Because PCBs have not been made since 1977, the levels in the environment and in the food chain have been declining.

How can I be exposed to PCBs?

Since PCBs are found throughout the environment, it is likely that everyone has been exposed to them. PCBs can enter the body by eating or drinking contaminated food, through the air we breathe, or by skin contact. PCBs are easily absorbed by the body and are stored in fatty tissue. PCBs are not eliminated well, so they can accumulate in the body.

Most people are exposed to PCBs by eating contaminated fish, meat, and dairy products. Catfish, buffalo fish, and carp usually have the highest PCB levels. Plants take up only small amounts of PCBs from the soil, so amounts in grazing animals and dairy products are generally lower than in fish. Dust contaminated with very small levels of PCBs may be found on the outer surfaces of fruits and vegetables.

PCBs do not dissolve well, so exposure to them from water is usually not a concern. Some private wells may use old submersible pumps that contain PCB oil. If the pump seal fails,

PCBs can leak into the well and contaminate the drinking water.

Older fluorescent lights found in schools, offices and homes may still contain transformers or ballasts that contain PCBs. If the ballasts fail, PCBs can leak out and contaminate exposed surfaces and the air. PCB levels measured in the air after a light ballast failure can be significant. The workplace also may be a source of PCB exposure.

How can PCBs affect my health?

Coming in contact with PCBs does not mean you will get sick or have health problems. Getting sick from being exposed to PCBs depends on: the amount of PCBs that entered your body, how long you were exposed to PCBs, and how sensitive your body is to PCBs.

In people, PCBs can affect the skin and may cause *chloracne*--small, pale, yellow skin lesions that may last from weeks to years. PCBs also can cause short-term changes in the activity of the liver, but without any noticeable symptoms. These liver changes are similar to those resulting from the consumption of alcoholic beverages or smoking cigarettes. Animal studies also have suggested that PCBs can affect the immune, endocrine and reproductive systems, but these effects are uncertain in humans.

Large amounts of PCBs given to laboratory animals over a short time can cause cancer. Studies of human workers exposed to high levels of PCBs for long periods have not consistently shown that PCBs cause cancer in humans. USEPA classifies PCBs as *probable* human carcinogens (cancer-causing chemicals), but there is no evidence that PCBs cause cancer at the low levels found in the environment.

Birth defects have been linked to mothers who have been exposed to PCBs. Developing fetuses and young children are the most vulnerable to PCBs, therefore, children and women who may become pregnant, are pregnant, or nursing should limit their exposure to PCBs. A pregnant woman can pass these chemicals to her unborn child. Mothers who eat highly contaminated fish before giving birth may have children who have slower mental development. PCBs also can be passed to a baby through breast milk. However, the significant benefits of breastfeeding far outweigh the risks. Young children also may experience developmental health effects.

Is there a medical test for PCBs?

Most people have a measurable amount of PCBs in their bodies. A blood test is best for measuring exposure to large amounts of PCBs. Although measuring PCBs in the body is possible, the analysis is expensive and not generally recommended because the results do not predict health effects or treatment.

How can I reduce or prevent my exposure to PCBs?

Avoiding contact with contaminated soils and sediments can reduce your exposure to PCBs. Exposure can be further reduced by following the cleaning and cooking advice in the *Illinois Fish and Your Health* fact sheet, which can be found at http://www.idph.state.il.us/envhealth/factsheets/fishpam.htm.

Another way to avoid exposure to PCBs is to wash fruits and vegetables before eating them.

Old fluorescent lights containing PCBs should be replaced and discarded before they fail and leak. If an oily film or fuel odor is noticed in your well water and you have a submersible pump, check to see if the pump has failed. If it has, replace it and contact the Illinois Department of Public Health for instructions on how to clean the well.

Where can I get more information?

Illinois Department of Public Health Division of Environmental Health 525 W. Jefferson St. Springfield, IL 62761 217-782-5830 TTY (hearing impaired use only) 800-547-0466

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Illinois Department of Public Health 535 West Jefferson Street Springfield, Illinois 62761 Phone 217-782-4977 Fax 217-782-3987 TTY 800-547-0466 Questions or Comments